

The potential for the transmission of highly infectious diseases like typhoid, cholera, viral hemorrhagic fevers, invasive meningococcal meningitis, and influenza during mass gathering events is enormous; since almost 90% of the pilgrims travel by air, the rapid dispersion of diseases around the globe is a distinct and deadly possibility. Returnees may assimilate back into their communities before the incubation period is over, unknowingly spreading microbes to their immediate household contacts and eventually to others.

Global mass gatherings, can lead to global hazards. Mitigation of risks requires expertise outside the specialty of acute care medicine, event planning, and venue engineering.

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#### **Type: Invited Presentation**

Final Abstract Number: 12.002

*Session: Major Drivers of Change in Global Infectious Diseases Epidemiology*

*Date: Thursday, June 14, 2012*

*Time: 15:45–17:45*

*Room: Lotus 1–4*

#### **Urbanization reshaping infectious diseases**

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Since 2007 half of the world population is urban. While in Europe and in the Americas over 70% of the population live in cities, most of the rapid urbanization is now taking place in Asian and African countries, many at yearly pace of 4 to 6%. Urbanization leads to major changes in the environment and lifestyle, with significant consequences for health. Overcrowding, pollution, insecurity, transportation difficulties are among common stress factors encountered in fast growing cities in the developing world. Food habits are modified due to social changes and lack of time, which combined with less physical activity lead to the rapid increase of non communicable chronic diseases (NCDs) such as cardiovascular disease, diabetes and chronic pulmonary disease. NCDs add extra burdens on existing infectious diseases, which remain a leading cause of morbidity and mortality. The urban environment influences infectious diseases' profile. Cities can become incubators where all the conditions are met for outbreaks to occur. While malaria transmission is decreasing, dengue fever and chikungunya are on the rise due to a vector well adapted to urban conditions. In slums and areas with poor sanitation, leptospirosis, lymphatic filariasis, leishmaniasis and diarrheal diseases are still prevalent. When access to clean water and proper sanitation become available, hepatitis A transmission decreases. No doubt urbanization can improve access to basic commodities such as water and sanitation, access to health services and prevention such as immunization and health education. Cities provide numerous resources for disease surveillance, control and prevention that are absent in rural areas. These are incredible opportunities for improving the health of urban dwellers and reduce the impact of infectious diseases.

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#### **Type: Invited Presentation**

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#### **Ecological challenges and emerging infectious diseases in SE Asia**

R. Coker

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SE Asia is a region undergoing profound ecological changes. Infectious diseases exploit the intersections of biological, social, ecological and technological systems in this regional milieu. Several infectious diseases have exacted heavy public health and economic tolls in recent years. The challenges to regional control of infectious diseases are formidable, and range from understanding and influencing the drivers of disease emergence and spread, through improving public health systems' capacity to anticipate, prevent, contain, mitigate and recover from emerging infectious diseases. This paper will reflect on the factors influencing the emergence and spread of livestock-associated zoonoses, attempt to conceptualise a research agenda, and outline some challenging areas of research that might impact upon public health in a timely manner.

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#### **Type: Invited Presentation**

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*Session: Update on Hepatitis B*

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#### **Epidemiology and natural course of chronic viral hepatitis B in Asia**

S. Thongsawat

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No abstract received from presenter.

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*Session: Update on Hepatitis B*

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*Room: Lotus 5–7*

#### **Updates on pathogenesis of hepatitis B**

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No abstract received from presenter.

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